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SECTION 00800 - SPECIAL CLAUSES

1. REFERENCE DRAWINGS.

a. One set of the reference drawings listed on Drawing No. M-L24-8/G-2 which cover details of the existing structure, will be included in each set of the contract drawings furnished the Contractor without charge, in accordance with Contract Clause DFARS 252.236-7001. Drawings showing additional details are available for examination at the Dept. of the Army, St. Louis District, Corps of Engineers, St. Louis, Missouri. Additional prints of reference drawings will be furnished the Contractor on request at the cost of reproduction.

b. The stationing and dimensions shown on the contract and reference drawings for the existing structure have been taken from the original contract drawings and the shop drawings for the original construction. The Contractor shall verify all the above stationing and dimensions and shall be responsible for making the new material and work fit the existing conditions.

2. PAY REQUESTS. Pay requests authorized in the Contract Clause entitled "Payments Under Fixed-Price Construction Contracts", will be paid pursuant to the clause entitled "Prompt Payment for Construction Contracts". Pay requests shall be submitted on ENG Form 93 and 93a, "Payment Estimate-Contract Performance" and "Continuation", respectively. All information and substantiation required by the identified contract clauses shall be submitted with the ENG Form 93, and the required certification shall be included on the last page of the ENG Form 93a, signed by an authorized official of the Contractor and dated when signed. The designated billing office is the Office of the Area Engineer.

3. PHYSICAL DATA (APR 1984). FAR 52.236-4. Data and information furnished or referred to below is furnished for the Contractor's information. The Government shall not be responsible for any interpretation of or conclusion drawn from the data or information by the Contractor.

a. Physical Conditions. The indications of physical conditions on the drawings and in the specifications are the result of site investigations.

b. Weather Conditions. Information with respect to temperatures and precipitation may be obtained from the National Weather Service.

c. Transportation Facilities. Railroads and highways serve the general area of the work. Water transportation is available to the site of the work.

d. Delivery of Government-Furnished Property. The Government-furnished property specified in Clause 00800-33 will be made available to the Contractor upon request at the site. The Contractor shall give the Contracting Officer 5 days notice prior to taking delivery of the Government-furnished property.

e. Condition of River Channel. Data relating to river stages, soundings, and flow may be examined at the office of the Dept. of the Army, St. Louis District, Corps of Engineers St. Louis, Missouri. The mean river

stages on gages in the vicinity of the work are shown on the chart at the end of the Special Clauses.

f. Channel Traffic. There is moderate commercial and pleasure traffic operating in the Mississippi River adjacent to the site. The passage of large craft may delay operations in the channel.

g. Obstruction of Channel. The Government will not undertake to keep the channel free from vessels or other obstructions, except to the extent of such regulations, if any, as may be prescribed by the Secretary of the Army, in accordance with the provisions of Section 7 of the River and Harbor Act approved 8 August 1917. The Contractor will be required to conduct the work in such manner as to obstruct navigation as little as possible, and in case the Contractor's plant so obstructs the channel as to make difficult or endanger the passage of vessels, said plant shall be promptly moved on the approach of any vessel to such an extent as may be necessary to afford a practicable passage. Upon completion of the work under this contract, all plant including ranges, buoys, piles, and other marks placed in navigable waters or on shore by the Contractor, shall be promptly removed.

h. Datum and Gages. The plane of reference as used in these specifications is the zero stage of the St. Louis, Missouri gage, Elevation 379.94 feet NGVD (National Geodetic Vertical Datum). Equivalent stages, based on steady river flow, for various stages on the St. Louis, Missouri gage, as determined by the Contracting Officer for gages in the localities where the work is to be done, are as shown on the chart at the end of the Special Clauses.

4. WORK AREAS. In accordance with the Contract Clause entitled, "Operations and Storage Areas", and subject to the approval of the Contracting Officer and the restrictions imposed by SECTION 01130 - ENVIRONMENTAL PROTECTION, of the Technical Provisions, the Contractor will be allowed use of Government-controlled land within the construction limits shown on the drawings or as specified herein. Any additional land, including ingress and egress, required by the Contractor, shall be obtained by the Contractor at its own expense.

5. PUBLIC UTILITIES AND PRIVATE IMPROVEMENTS.

a. Unless otherwise specified, shown on the drawings, or stated in writing by the Contracting Officer, the Contractor shall not move or disturb any public utilities or private improvements. Such removals, alterations, and/or relocations, where necessary, will be made by others. The locations shown on the drawings for underground utilities are approximate only. The exact locations of such utilities shall be determined by the Contractor in the field prior to commencing construction operations in their vicinity.

b. The attention of the Contractor is directed to the possibility that public utilities or private improvements may be encountered within the construction limits, some of which may be buried, and the existence of which is presently not known. Should any such utilities or improvements be encountered, the Contractor shall immediately notify the Contracting Officer so that a determination may be made as to whether they shall be removed, relocated, or altered. After such determination is made, the Contractor shall, if so directed by the Contracting Officer, remove, relocate, or alter them as required and an equitable adjustment will be made. In the event the Contracting Officer arranges for such removals, alterations, or relocations to

be performed by others, the Contractor shall cooperate with such others during the latters' removal, alteration, or relocation operations.

6. DAMAGE TO WORK. The responsibility for damage to any part of the permanent work shall be as set forth in the Contract Clause entitled "Permits and Responsibilities." However, if in the judgment of the Contracting Officer any part of the permanent work performed by the Contractor is damaged by flood or earthquake, which damage is not due to the failure of the Contractor to take reasonable precautions or to exercise sound engineering and construction practices in the conduct of the work, the Contractor shall make the repairs as ordered by the Contracting Officer and full compensation for such repairs will be made at the applicable contract unit or lump sum prices as fixed and established in the contract. If in the opinion of the Contracting Officer there are no contract unit or lump sum prices applicable to any part of such work, an equitable adjustment pursuant to the Contract Clause entitled, "Changes," of the contract will be made as full compensation for the repairs of that part of the permanent work for which there are no applicable contract unit or lump sum prices. Except as herein provided, damage to all work (including temporary construction), utilities, materials, equipment, and plant shall be repaired to the satisfaction of the Contracting Officer at the Contractor's expense, regardless of the cause of such damage.

7 and 8. NOT USED.

9. PARTIAL PAYMENT. At the discretion of the Contracting Officer, partial payment will be made for equipment delivered and stored on site or off site providing such storage is in accordance with the provisions of these specifications and the Contractor furnishes satisfactory evidence that title to such equipment has been acquired and that it will be utilized on the work covered by these specifications. Partial payment is defined as the invoice amount plus shipping costs. If the equipment is stored off site, the Government shall have the right to inspect the equipment.

10. CERTIFICATES OF COMPLIANCE. Any certificates required for demonstrating proof of compliance of materials with specification requirements shall be executed in 3 copies. Each certificate shall include the signature and title of an official authorized to certify in behalf of the manufacturing company and shall contain the name and address of the Contractor, the project name and location, and the quantity and date or dates of shipment or delivery to which the certificates apply. Copies of laboratory test reports submitted with certificates shall contain the name and address of the testing laboratory and the date or dates of the tests to which the report applies. Certification shall not be construed as relieving the Contractor from responsibility for furnishing satisfactory material if, after tests are performed on selected samples, the material is found not to meet the specific requirements.

11. PURCHASE ORDERS. Two copies of all purchase orders for other than stock materials showing the firm names and addresses and list of material shall be furnished to the Contracting Officer or an authorized representative as soon as issued.

12. SAFETY AND HEALTH REQUIREMENTS MANUAL EM 385-1-1. The Safety and Health Requirements Manual EM 385-1-1 forms a part of these specifications. EM 385-1-1 and its changes are available at http://www.hq.usace.army.mil (at the HQ homepage, select Safety and Occupational Health). The Contractor shall be responsible for complying with the current edition and all changes posted on the web as of the effective date of this solicitation. EM 385-1-1 is provided on the CD-ROM and the St. Louis District web site for each

solicitation, however the Contractor shall be responsible for obtaining any changes to the manual, which are available on the above web site.

13. ACCIDENT INVESTIGATIONS AND REPORTING. Refer to EM 385-1-1, Paragraph 01.D. Accidents shall be investigated and reports completed by the immediate supervisor of the employee(s) involved and reported to the Contracting Officer or an authorized representative within one working day after the accident occurs. The accident Investigation report shall be made on ENG Form 3394.

14. ACCIDENT PREVENTION PROGRAM. Refer to Contract Clause FAR 52.236-13 entitled, "Accident Prevention". Within 15 days after receipt of Notice of Award of the contract, and at least 7 days prior to the prework conference, the original and one copy of the Accident Prevention Program shall be submitted to the Contracting Officer for review. The program shall be prepared in the following format:

a. An executed MVS Form 385-33, Administrative Plan.

b. An executed MVS Form 385-359-R, Hazard Analysis.

c. A copy of company policy statement of accident prevention and any other guidance statements normally provided new employees. Each company employee shall be required to sign the company policy statement of accident prevention to verify that all employees have been informed of the safety program, and such signed statements shall be maintained at the project site.

d. When marine plant and equipment are in use under a contract, the method of fuel oil transfer shall be included on MVS Form 385-22, Fuel Oil Transfer (refer to 33 CFR 156).

The Contractor shall not commence physical work at the site until the program has been reviewed and found acceptable by the Contracting Officer, or an authorized representative. At the Contracting Officer's discretion, the Contractor may submit its Activity Hazard Analysis only for the first phase of construction provided that it is accompanied by an outline of the remaining phases of construction. All remaining phases shall be submitted and accepted prior to the beginning of work in each phase. Also refer to Section 1 of EM 385-1-1.

15. DAILY INSPECTIONS. The Contractor shall perform daily safety inspections and record them on the forms approved by the Contracting Officer. Reports of daily inspections shall be maintained at the job site. The reports shall be records of the daily inspections and resulting actions. Each report shall include, as a minimum, the following:

a. Phase(s) of construction underway during the inspection.

b. Locations of areas inspections were made.

c. Results of inspection, including nature of deficiencies observed and corrective actions taken, or to be taken, date, and signature of the person responsible for its contents.

16. ENVIRONMENTAL LITIGATION.

(a) If the performance of all or any part of the work is ordered

by a court of competent jurisdiction to be suspended, delayed, or interrupted as a result of environmental litigation, as defined below, the Contracting Officer, at the request of the Contractor, shall determine whether the order is due in any part to the acts or omissions of the Contractor or a Subcontractor at any tier not required by the terms of this contract. If it is determined that the order is not due in any part to acts or omissions of the Contractor or a Subcontractor at any tier other than as required by the terms of this contract, such suspension, delay, or interruption shall be considered as if ordered by the Contracting Officer in the administration of this contract under the terms of the Contract Clause entitled "Suspension of Work".

(b) The term "environmental litigation", as used herein, means a lawsuit alleging that the work will have an adverse effect on the environment or that the Government has not duly considered, either substantively or procedurally, the effect of the work on the environment.

17. TIME EXTENSIONS FOR UNUSUALLY SEVERE WEATHER.

a. This provision specifies the procedure for the determination of time extensions for unusually severe weather in accordance with the Contract Clause entitled, "Default (Fixed-Price Construction)". In order for the Contracting Officer to award a time extension under this clause, the following conditions must be satisfied:

(1) The weather experienced at the project site during the contract period must be found to be unusually severe, that is, more severe than the adverse weather anticipated for the project location during any given month.

(2) The unusually severe weather must actually cause a delay to the completion of the project. The delay must be beyond the control and without the fault or negligence of the Contractor.

b. The following schedule of monthly anticipated adverse weather delays is based on National Oceanic and Atmospheric Administration (NOAA) or similar data for the project location and will constitute the base line for monthly weather time evaluations. The Contractor's progress schedule must reflect these anticipated adverse weather delays in all weather dependent activities.

MONTHLY ANTICIPATED ADVERSE WEATHER DELAY
WORK DAYS BASED ON (5) DAY WORK WEEK

JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
(12)	(9)	(7)	(7)	(7)	(8)	(8)	(9)	(6)	(6)	(7)	(9)

c. Upon acknowledgement of the Notice to Proceed (NTP) and continuing throughout the contract, the Contractor shall record on the daily CQC report, the occurrence of adverse weather and resultant impact to normally scheduled work. Actual adverse weather delay days must prevent work on critical activities for 50 percent or more of the Contractor's scheduled work day. The number of actual adverse weather delay days shall include days impacted by actual adverse weather (even if adverse weather occurred in previous month), be calculated chronologically from the first to the last day of each month, and be recorded as full days. If the number of actual adverse weather delay days exceeds the number of days anticipated in paragraph b,

above, the Contracting Officer will convert any qualifying delays to calendar days, giving full consideration for equivalent fair weather work days, and issue a modification in accordance with the Contract Clause entitled "Default (Fixed Price Construction)".

18. SUBCONTRACTS. In accordance with the Contract Clause entitled "Subcontracts", the Contractor shall, within seven days after the award of any subcontract by the Contractor or a Subcontractor, deliver to the Contracting Officer two copies of a completed Standard Form 1413. Both copies must contain the original signatures of both parties.

19. REQUIRED INSURANCE.

a. As required by the Contract Clause entitled "Insurance-Work on a Government Installation", the Contractor shall within 15 days after receipt of Notice of Award and prior to the commencement of work, furnish to the Contracting Officer, a written statement as evidence of the following minimum insurance:

(1) Workmen's Compensation. Amounts required by applicable jurisdictional statutes.

(2) Employer's Liability Insurance. $100,000

(3) Comprehensive General Liability Insurance.

Bodily Injury - $500,000 per occurrence

(4) Comprehensive Automobile Insurance.

Bodily Injury	-	$200,000 each person
		$500,000 each accident
Property Damage	-	$ 20,000 each accident

b. Statements of insurance should be submitted to the following address:

Department of the Army
St. Louis District, Corps of Engineers
Northern Area Office, CEMVS-CO-CN
P.O. Box 78
Elsberry, Missouri 63343

20. PROTECTION OF MATERIAL AND WORK. The Contractor shall at all times protect and preserve all materials, supplies, and equipment of every description (including property which may be Government-furnished or owned) and all work performed. All reasonable requests of the Contracting Officer to enclose or specially protect such property shall be complied with. If, as determined by the Contracting Officer, material, equipment, supplies, and work performed are not adequately protected by the Contractor, such property may be protected by the Government and the cost thereof may be charged to the Contractor or deducted from any payments due to the Contractor.

21. CONTAMINATION OF WATER. In addition to the requirements set forth in 01130-3.3, Protection of Water Resources, the Contractor shall take positive protective measures to prevent spillage of potential pollutant materials such as fuel, emulsion materials, chemicals etc., from storage containers or equipment, into lakes or tributary waters. Such positive

protective measures may include, but not limited to, the following:

(1) A berm enclosure of sufficient capacity to contain such materials.

(2) Security measures to prevent acts of vandalism which could result in spillage of such materials (fences, guards, etc.).

(3) Storage of such materials in an area where the terrain would preclude leakage into lake or tributary waters.

(4) Utilization of secure Government storage areas if the Contracting Officer indicates such space is available. No storage past immediate needs (2 days) without the consent of the Contracting Officer.

The Contractor shall submit its proposals for implementing the above provisions in accordance with 01130-1.5, Environmental Protection Plan.

22. COMMERCIAL WARRANTY. The Contractor agrees that the standard commercial equipment furnished under this contract shall be covered by the most favorable commercial warranties the manufacturer gives to any customer for such equipment, and that the rights and remedies provided herein are in addition to and do not limit any rights afforded to the Government by any other clause of this contract. The Contractor shall furnish two copies of the warranties to the Contracting Officer.

23. ORDER AND COORDINATION OF WORK. The Contractor may start and compete the work in such order and sequence as desired subject to compliance with the following paragraphs:

a. The entire service bridge shall be kept open at all times for travel by personnel. The Contractor shall keep the top of the dam clear of debris and equipment at all times. The Contractor shall keep all hatches on top of the service bridge closed except for access or egress by personnel, at which time the openings will be barricaded as per EM 385-1-1.

b. There are two sets of bulkheads and a single pick-up beam and spreader beam available for use by the Contractor. The Government will install bulkheads for Gates 14 and 15. It will be the Contractor's responsibility to remove the bulkheads from Gates 14 and 15. For subsequent Tainter gate repair, the Contractor shall install bulkheads using Contractor furnished floating plant. The Government bridge crane shall not be available to the Contractor for any type of use. The Contractor shall take possession of the pick-up beam and spreader beam at the storage yard at the east end of the dam, a maximum of two days prior to utilizing them for bulkhead handling, and shall return them to the same location at the conclusion of this contract. The approximate weight of the above items is:

Bulkhead pickup beam – 12,000 lbs
Bulkhead – 50,000 lbs (each
Spreader beam – 3,000 lbs

c. Representatives of the Contracting Officer and the Contractor will inspect the bulkheads and pick-up beam following removal of the bulkheads from a repaired gate bay. The Contractor shall be responsible for repairing any damage to the bulkheads, spreader beam, and pick-up

beam following that inspection prior to installation of bulkheads in the next location to be repaired. The Contractor shall notify the Contracting Officer five (5) days prior to each inspection.

d. Other than for the work on Gate Nos. 15 and 14, no work will be permitted under this contract during the time period of 1 December to 23 February due to cold temperatures and ice on the river. The Contractor shall remove floating plant and bulkheads during this period (1 Dec to 23 Feb) from the immediate work site.

e. Tainter gate repair shall begin with Gate 15, followed by Gate 14. Unless otherwise directed by the Contracting Officer, Tainter gate repair shall then move to Gate 1 and proceed in order through Gate 7. This contract is for the repair of nine Tainter gates. The Government may exercise the option for additional Tainter gate repair as defined in the bidding schedule.

f. Access to the dam across the overflow spillway shall be limited to rubber-tired passenger vehicles or pickup trucks. At pool Elevation 449.10 there is restricted land access with overtopping of the overflow spillway imminent. If the spillway is overtopped the Contractor will not have access from the Illinois side. Due to current security threat levels the Contractor shall be required to keep the storage yard gate and Pier 16 access door locked at all times, when not actually entering or exiting the storage yard or accessing the dam. If the Illinois gate is to be used for Contractor access, the Contractor shall provide a security guard, stationed at the gate, to control such access.

g. All work by the Contractor shall be done with the floating plant located on the downstream side of the dam or on fixed platform per SECTION 05057-3.6.2, with the exception of placing the bulkheads which can be placed from the upstream side of the dam. Spuds shall not be lowered onto the apron/stilling basin.

h. At all times when floating plant is operating on the upstream side of the dam, as part of the bulkhead moving and placing operation, the Contractor shall provide 2 towboats. Tow boats shall have a minimum of 900 horsepower engines and shall be used for plant stability and emergencies.

i. The Contractor shall monitor fluctuations of tailwater elevation and make tie off adjustments such that the floating plant shall not damage the piers. Adequate protection between the barge and pier shall be provided by the Contractor at all times to prevent damage to the pier concrete surfaces. The Contractor shall be required to have a safety boat in accordance with Corps of Engineers safety requirements. At all times when work is not in progress, the Contractor shall be required to have a 24 hour telephone number where the Government may reach a representative of the Contractor to notify of any problems with the floating plant. The representative must be available to be on site to attend to work barge(s) within 60 minutes of a phone call from the Government 24 hours a day, 7 days a week. The Contractor shall post and keep current telephone numbers for emergency action. The Contractor shall submit the contingency plans for addressing headwater and/or tailwater fluctuations to the Contracting Officer for approval at least 7 days before mobilization.

j. The staging area for the contract shall be the area downstream of

the entrance road where it crosses the railroad tracks as shown on contract drawings. No loading or unloading of materials and supplies shall be permitted from the lock walls or guide walls.

k. The Contractor will be allowed to use the riverside of the I-wall for mooring floating plant. The same restrictions as stated in paragraph i. above will be in effect. Size restriction of floating plant moored to riverside I-wall is shown on the drawings.

l. The Government will operate all dam gate equipment for the Contractor. The Contractor shall provide the Government with a minimum of 24 hour notice of the need for gate operations. Flow conditions permitting, prior to the contractor placing bulkheads the Government will flush water under the gate for a minimum of 4 hours.

m. The Contractor shall coordinate its operations to not interfere with the functions of the Government personnel and the use of the lock by river traffic. The Contractor will receive priority lockage one time per 24 hour period.

n. The Contractor shall protect the existing piezometers on the dam piers from damage.

o. The Contractor will not be allowed access to the lock and dam control station other than for coordination purposes.

p. The Contractor shall furnish any electrical power required for construction activities.

q. At least 30 days prior to mobilization, the Contractor shall submit the plan for storage of materials and equipment at the site to the Contracting Officer for approval.

r. Construction limits will extend as shown on the drawings. Contractor personnel may cross the main lock lower miter gate when the gates are closed, and may cross the auxiliary lock miter gate and dam using the service bridge to gain access to the construction limits. Only hand carried equipment shall be brought across the miter gates and the dam by Contractor personnel. The Government anticipates being at an elevated threat level during this contract, therefore the Contractor shall provide a security guard, stationed at the automated front gate, to control access when the automated front gate is to be used for Contactor personnel access. Government personnel will only open the front gate and turn over to Contractor control and in turn close gate and take back control one time per day.

s. The Contractor's employees will be required to park personnel vehicles outside of Government Property.

t. At the completion of this contract, the Government Furnished Equipment (bulkheads, pick-up beam, and spreader) shall be returned to initial locations in storage yard.

u. No potable water will be made available to the Contractor. All potable water shall be furnished by the Contractor.

v. The Contractor and its personnel shall not use any existing toilet facilities on the project (visitors platform, control house or

maintenance buildings). The Contractor shall provide its own portable facilities.

w. No floating plant will be allowed behind the lower guide wall. Size restriction of floating plant moored at Contractor staging area shall be a maximum combined width of seventy (70) feet.

x. Not more than two tainter gates shall be out of service for rehabilitation at one time. When two tainter gates are out of service, the two gates shall be adjacent to each other. The amount of concurrent structural demolition on two gates shall be limited as shown on the drawings. Gates on either side of the bulkheaded gate(s) will be adjusted by the Government in an attempt to minimize turbulence below the gate being rehabilitated. All requests by the Contractor, with respect to gate settings, will be coordinated with the Lockmaster. The Lockmaster is responsible for maintaining safety and operability of the lock and will only concur and direct gate change settings as determined safe by the Lockmaster.

y. If river levels are such that bulkheads are overtopped during allowable work periods, 24 February thru 30 November, the Contractor shall remove all floating plant from dam piers and moor plant off site or to the back side of the Intermediate Wall for the duration of the high water event.

z. The Contractor shall commence on site work by 1 December 2004.

24. AS-BUILT DRAWINGS.

a. "As-Built" Contract Drawings. The Contractor shall maintain a separate set of full-size contract drawings, marked up in red, to indicate as-built conditions. Each as-built contract drawing shall include the Contract Number (W912P9-XX-C-XXXX) associated with the contract. These drawings shall be maintained in a current condition at all times until completion of the work and shall be available for review by Government personnel at all times. All variations from the contract drawings, for whatever reason, including those occasioned by modifications, optional materials, and the required coordination between trades, shall be indicated. These variations shall be shown in the same general detail utilized in the contract drawings. Upon completion of the work, two (2) sets of the marked-up drawings shall be furnished to the Contracting Officer prior to acceptance of the work. The Government will withhold two percent of the total bid price of the items for which as-built contract drawings have not been submitted.

b. "As-Built" Shop Drawings. Upon completion of items of work, the Contractor shall revise the shop drawings to show "as-built" conditions. The notation "Revised to show 'as-built' conditions" shall be placed in red in the lower right corner of each drawing along with the initials of a responsible company representative. Each as-built shop drawing or catalog cut shall be identified by the Contract Number (W912P9-XX-C-XXXX) associated with the contract, and corresponding transmittal number from ENG Form 4025. "As-built" shop drawings of each Contractor-prepared construction drawing should be prepared as soon as possible after the construction detailed on a given drawing has been completed. After the "as-built" shop drawings have been prepared as described above and within 15 days after the contract completion date, the Contractor shall submit four (4) complete sets of as-built shop drawings, including catalog cuts, to the Contracting Officer. The Government

will withhold two percent of the total bid price of the item for which as-built shop drawings have not been submitted.

25. NOT USED.

26. MEANS OF ESCAPE FOR PERSONNEL QUARTERED OR WORKING ON FLOATING PLANT. Two means of escape shall be provided for assembly, sleeping, and messing areas on floating plants. For areas involving 10 or more persons, both means of egress shall be through standard size doors opening to different exit routes. Where 9 or fewer persons are involved, one of the means of escape may be a window (minimum dimensions 24-inch by 36-inch) which leads to a different exit route. Refer to Section 19 of EM 385-1-1.

27. EMERGENCY ALARMS AND SIGNALS.

a. Alarms. Emergency alarms shall be installed and maintained on all floating plant requiring a crew where it is possible for either a passenger or crewman to be out of sight or hearing from any other person. The alarm system shall be operated from the primary electrical system with standby batteries on trickle charge that will automatically furnish the required energy during an electrical-system failure. A sufficient number of signaling devices shall be placed on each deck so that the sound can be heard distinctly at any point above the usual background noise. All signaling devices shall be so interconnected that actuation can occur from at least one strategic point on each deck.

b. Signals.

(1) Fire Alarm Signals. The general fire alarm signal shall be in accordance with para 97.13-15b of the Coast Guard Rules and Regulations for Cargo and Miscellaneous Vessels, Subchapter I, 1 Sep 77 (CG 257).

(2) Abandon Ship Signals. The signal for abandon ship shall be in accordance with paragraph 97.13-15c of reference cited in (1) above.

(3) Man-Overboard Signal. Hail and pass the word to the bridge. All personnel and vessels capable of rendering assistance shall respond.

c. Mooring Lines. Eye loops on mooring lines will be equipped with beckets or handling ropes to protect the hands of deckhands.

28. USE OF MECHANIZED EQUIPMENT ON FLOATING PLANT. When mechanized equipment is operated on floating plant the Contractor shall provide positive and acceptable means of preventing this equipment from moving or falling into the water. The type of equipment addressed by this clause includes front-end loaders, bulldozers, trucks (both on- and off-road), backhoes, track hoes, and similar equipment. If the Contractor plans to use such equipment on floating plant, an Activity Hazardous Analysis must be developed for this feature of work. The plan must include a detailed explanation of the type or types of physical barriers, curbs, structures, etc., which will be incorporated to protect the operator and prevent the equipment from entering the water. Nonstructural warning devices may be considered for situations where the use of structural barriers is determined to be impracticable. The Activity Hazard Analysis must thoroughly address the procedure and shall be submitted to the Contracting Officer for review and acceptance prior to start of this feature of work.

29. OBSTRUCTION OF NAVIGABLE WATERWAYS (DEC 1991). DFARS 252.236-7002.

(a) The Contractor shall--

(1) Promptly recover and remove any material, plant, machinery, or appliance which the contractor loses, dumps, throws overboard, sinks, or misplaces, and which, in the opinion of the Contracting Officer, may be dangerous to or obstruct navigation;

(2) Give immediate notice, with description and locations of any such obstructions, to the Contracting Officer, and

(3) When required by the Contracting Officer, mark or buoy such obstructions until the same are removed.

(b) The Contracting Officer may--

(1) Remove the obstructions by contract or otherwise should the Contractor refuse, neglect, or delay compliance with paragraph (a) of this clause; and

(2) Deduct the cost of removal from any monies due or to become due to the Contractor, or

(3) Recover the cost of removal under the Contractor's bond.

(c) The Contractor's liability for the removal of a vessel wrecked or sunk without fault or negligence is limited to that provided in Sections 15, 19, and 20 of the River and Harbor Act of March 3, 1899 (33 U.S.C. 410 et.seq.).

30. SIGNAL LIGHTS. The Contractor shall display signal lights and conduct its operations in accordance with the General Regulations of the Department of the Army and of the Coast Guard governing lights and day signals to be displayed by towing vessels with tows on which no signals can be displayed, vessels working on wrecks, dredges, and vessels engaged in laying cables or pipe in submarine or bank protection operations, lights to be displayed on dredge pipe lines, and day signals to be displayed by vessels of more than 65 feet in length moored or anchored in a fairway or channel, and the passing by other vessels of floating plant working in navigable channels, as set forth in Commandant U.S. Coast Guard Instruction M16672.2, Navigation Rules: International-Inland (Comdtinst M16672.2) or 33 CFR 81 Appendix A (International) and 33 CFR 84 through 33 CFR 89 (Inland) as applicable.

31. INSPECTION FACILITIES.

a. In order to facilitate inspection, the Contractor will be required, without additional cost to the Government:

(1) To furnish, on the request of the Contracting Officer or any inspector, the use of such boats, boatmen, laborers, and material forming a part of the ordinary and usual equipment and crew of the plant as may be reasonably necessary in inspecting the work.

(2) To furnish, on the request of the Contracting Officer or any inspector, suitable transportation from all points on shore designated by the Contracting Officer to and from the various pieces of plant.

b. Should the Contractor refuse, neglect, or delay compliance with these requirements, the specific facilities may be furnished and maintained by the Contracting Officer, and the cost thereof will be deducted from any amounts due or to become due the Contractor.

32. NOT USED.

33. IDENTIFICATION OF GOVERNMENT-FURNISHED PROPERTY. FAR 52.245-3 (APR 1984)

a. The Government will furnish to the Contractor the property identified in the Schedule, to be incorporated or installed in the work or used in performing the contract. The listed property will be furnished at the place specified in Special Clause 00800-3, Paragraph d. The Contractor is required to accept delivery, pay any demurrage or detention charges, and unload and transport the property to the job site at its own expense. When the property is delivered, the Contractor shall verify its quantity and condition and acknowledge receipt in writing to the Contracting Officer. The Contractor shall also report in writing to the Contracting Officer within 24 hours of delivery any damage to or shortage of the property as received. All such property shall be installed or incorporated into the work at the expense of the Contractor, unless otherwise indicated in this contract.

b. Each item of property to be furnished under this clause shall be identified in the Schedule by quantity and item.

QUANTITY	ITEM
12	bulkheads
1	spreader
1	bulkhead pick-up beam

The value of the aforesaid property is estimated to be approximately $2,382,000.

34. PARTNERING. In order to most effectively accomplish this contract, the Government is willing to form a cohesive partnership with the Contractor. This partnership would strive to draw on the strengths of each organization in an effort to achieve a quality project done right the first time, within budget, and on schedule. This partnership would be bilateral in make-up and partnership will be totally voluntary. Any cost associated with effectuating this partnership will be agreed to by all parties and will be shared equally with no change in contract price.

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SECTION 01025 - MEASUREMENT AND PAYMENT

PART 1 GENERAL

1.1 MOBILIZATION AND DEMOBILIZATION. Mobilization and demobilization for Tainter gate repair will not be measured for payment. Payment for costs associated with mobilization and demobilization for the base contract will be made at the contract base bid lump sum price for "Mobilization and Demobilization", as defined in SECTION 00700 - Contract Clauses. Mobilization and demobilization for the optional bid items will be made at the contract lump sum price, associated with the awarded options, for "Mobilization and Demobilization" as defined in SECTION 00700 - Contract Clauses. However, payment of this item shall only be made if, at the time of award of the option, the base contract work, and any previously awarded options, are substantially complete and contract demobilization has occurred.

1.2 DEMOLITION AND RECONSTRUCTION OF GATES OTHER THAN NO. 5. Payment for demolition and reconstruction as specified in the applicable portions of SECTIONS 05057 and 09965 will be made at the contract base bid price per each for “Demolition and Reconstruction (Gates 15,14,1,2,3,4,6,7)” and optional bid prices per each for “Demolition and Reconstruction (Gates 8,9 and 10)” and “Demolition and Reconstruction (Gates 11,12 and 13)” and shall include debris and waste removal, containment and disposal from the interior of the tainter gate; removal of paint in areas adjacent to flame cutting and/or welding; removal and replacement of skin plate; removal and replacement of longitudinal ribs; installation of transverse diaphragms; and sandblasting and painting applicable areas affected by the tainter gate repair, which prices and payments shall constitute full compensation for all cost of providing all plant, labor, materials and equipment and performing all operations necessary to complete the work as shown on the drawings and as specified.

1.3 DEMOLITION AND RECONSTRUCTION OF TAINTER GATE NO. 5. Payment for repairs to Tainter Gate No. 5 as specified in the applicable portions of SECTIONS 05057 and 09965 will be made at the contract base bid price per each for “Demolition And Reconstruction of Tainter Gate No. 5”, and shall include debris and waste removal, containment and disposal from the interior of the tainter gate; removal of paint in areas adjacent to flame cutting and/or welding; removal and replacement of skin plate; removal and replacement of longitudinal ribs; installation of transverse diaphragms; and sandblasting and painting applicable areas affected by the tainter gate repair, which prices and payments shall constitute full compensation for all cost of providing all plant, labor, materials and equipment, and performing all operations necessary to complete the work as shown on the drawings and as specified.

1.4 REPLACE TAINTER GATE SIDE SEALS. Payment for the replacement of tainter gate side seals as specified in the applicable portions of SECTION 05057 will be made at the applicable contract base bid and optional bid item prices per each for “Replace Tainter Gate Side Seals (Gates 15,14,1,2,3,4,5,6,7)”, “Replace Tainter Gate Side Seals (Gates 8,9 and 10)”

and “Replace Tainter Gate Side Seals (Gates 11,12 and 13)” and shall include removal of existing bolts, bulb seal, seal angle, clamp bar, and spacer bar; installation of new bulb seals, new bolts, new seal angles, new clamp bars, new spacer bars; painting of new seal angles, clamp bars, and spacer bars; and adjustment of new seals, which prices and payments shall constitute full compensation for all cost of providing all plant, labor, materials and equipment and performing all operations necessary to complete the work as shown on the drawings and as specified.

PART 2 PRODUCTS (NOT APPLICABLE)

PART 3 EXECUTION (NOT APPLICABLE)

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SECTION 01440 - CONTRACTOR QUALITY CONTROL

PART 1 - GENERAL

1.1 REFERENCES. The publications listed below form a part of this specification to the extent referenced. The publications are referred to in the text by basic designation only.

1.1.1 American Society for Testing and Materials (ASTM).

ASTM D 3740 (1996)	Minimum Requirements for Agencies Engaged in the Testing and/or Inspection of Soil and Rock as Used in Engineering Design and Construction
ASTM E 329 (1998)	Agencies Engaged in the Testing and/or Inspection of Materials Used in Construction

1.2 PAYMENT. Separate payment will not be made for providing and maintaining an effective Quality Control program, and all costs associated therewith shall be included in the applicable unit prices or lump-sum prices contained in the Bidding Schedule.

PART 2 - PRODUCTS. (Not Applicable)

PART 3 - EXECUTION

3.1 GENERAL. The Contractor is responsible for quality control and shall establish and maintain an effective quality control system in compliance with the Contract Clause entitled "Inspection of Construction." The quality control system shall consist of plans, procedures, and organization necessary to produce an end product that complies with the contract requirements. The system shall cover all construction operations, both on-site and off-site, and shall be keyed to the proposed construction sequence.

3.2 QUALITY CONTROL PLAN.

3.2.1 General. The Government will consider an interim plan for the first 60 days of operation to be submitted no later than 15 days after receipt of Notice of Award. Subsequent to submittal of an interim plan, the Contractor shall furnish for acceptance by the Government, not later than 35 days after receipt of Notice of Award, the original and one copy of the total Contractor Quality Control (CQC) Plan proposed for use in implementing the requirements of the Contract Clause entitled "Inspection of Construction". If an interim plan is not submitted, the Contractor shall submit for approval within 15 days after receipt of Notice of Award, the total Quality Control Plan specified above. The plan shall identify personnel, procedures, control, instructions, test, records, and forms to be used. Construction will be permitted to begin only after acceptance of the CQC Plan.

3.2.2 Content of the CQC Plan. The CQC plan shall include, as a minimum, the following to cover all construction operations, both on-site and off-site, including work by subcontractors, fabricators, suppliers, and purchasing agents:

a. A description of the quality control organization, including a chart showing lines of authority and acknowledgment that the CQC staff shall implement the three phase control system for all aspects of the work specified. The staff shall include a CQC system manager who shall report to the project manager or someone higher in the Contractor's organization. Project Manager in this context shall mean the individual with responsibility for the overall management of the project including quality and production.

b. The name, qualifications (in resume format), duties, responsibilities, and authorities of each person assigned a CQC function.

c. The name and address of the Corps of Engineers validated commercial testing laboratory to be used for quality control testing; a letter of validation from the Material Testing Center (MTC); a list of applicable ASTM procedures that the laboratory is validated to perform; and the qualifications of the field technician(s) identified for the project.

d. A copy of the letter to the CQC System Manager signed by an authorized official of the firm, which describes the responsibilities and delegates the authorities of the CQC System Manager.

e. Procedures for scheduling, reviewing, certifying, and managing submittals, including those of subcontractors, off-site fabricators, suppliers, and purchasing agents. These procedures shall be in accordance with SECTION 01300 - SUBMITTAL PROCEDURES.

f. Control, verification, and acceptance testing procedures for each specific test to include the test name, specification paragraph requiring test, feature of work to be tested, test frequency, and person responsible for each test. (Laboratory facilities will be approved by the Contracting Officer.)

g. Procedures for tracking preparatory, initial, and follow-up control phases and control, verification, and acceptance tests including documentation.

h. Procedures for tracking construction deficiencies from identification through acceptable corrective action. These procedures shall establish verification that identified deficiencies have been corrected.

i. Reporting procedures, including proposed reporting formats.

j. A list of the definable features of work. A definable feature of work is a task that is separate and distinct from other tasks and has separate control requirements. It could be identified by different trades or disciplines, or it could be work by the same trade in a different environment. Although each section of the specifications may generally be considered as a definable feature of work, there are frequently more than one definable feature under a particular section. This list shall be agreed upon during the coordination meeting.

3.2.3 Acceptance of Plan. Acceptance of the Contractor's plan is required prior to the start of construction. Acceptance is conditional and will be predicated on satisfactory performance during the construction. The Government reserves the right to require the Contractor to make changes in the CQC plan and operations including removal of personnel, as necessary, to obtain the quality specified.

3.2.4 Notification of Changes. After acceptance of the QC plan, the Contractor shall notify the Contracting Officer in writing a minimum of seven calendar days prior to any proposed change. Proposed changes are subject to acceptance by the Contracting Officer.

3.3 COORDINATION MEETING. After the Preconstruction Conference, before start of construction, and prior to acceptance by the Government of the Quality Control Plan, the Contractor shall meet with the Contracting Officer or Authorized Representative and discuss the Contractor's quality control system. During the meeting, a mutual understanding of the system details shall be developed, including the forms for recording the CQC operations, control activities, testing, administration of the system for both on-site and off-site work, and the interrelationship of Contractor's Management and control with the Government's Quality Assurance. Minutes of the meeting shall be prepared by the Government and signed by both the Contractor and the Contracting Officer. The minutes shall become a part of the contract file. There may be occasions when subsequent conferences will be called by either party to reconfirm mutual understandings and/or address deficiencies in the CQC system or procedures which may require corrective action by the Contractor.

3.4 QUALITY CONTROL ORGANIZATION. The Contractor shall identify an individual within its organization at the worksite who shall be responsible for overall management of CQC and have the authority to act in all CQC matters for the Contractor. This CQC System Manager shall be on the site at all times during construction and shall be employed by the Contractor. This Contractor Quality Control System Manager shall be Corps' certified and shall be approved by the Contracting Officer. To become "certified" the manager must have completed the course entitled "Construction Quality Management for Contractors". This course is offered quarterly at the St. Louis Corps of Engineers District Office. An alternate for the CQC System Manager shall be identified in the plan to serve in the event of the System Manager's absence. Period of absence may not exceed one (1) week at any one time, and not more than ten (10) workdays during a calendar year. The requirements for the alternate will be the same as for the designated CQC Manager.

3.4.1 CQC Organizational Staffing. The Contractor shall provide a CQC staff, which shall be at the worksite at all times during progress, with complete authority to take any action necessary to ensure compliance with the contract.

3.4.1.1 CQC Staff. Following are the minimum requirements for the CQC staff. These minimum requirements will not necessarily assure an adequate staff to meet the CQC requirements at all times during construction. The actual strength of the CQC staff may vary during any specific work period to cover the needs of the work period. When necessary for a proper CQC organization, the Contractor shall add additional staff at no cost to the Government. This listing of minimum staff in no way relieves the Contractor of meeting the basic requirements of quality construction in accordance with contract requirements. All CQC staff members shall be certified in accordance with paragraph 01440-3.4 QUALITY CONTROL ORGANIZATION, and shall be subject to acceptance by the Contracting Officer.

3.4.1.2 CQC System Manager. The CQC System Manager and staff shall be assigned no scheduling or other duties.

3.4.2 Organizational Changes. The Contractor shall obtain Contracting Officer's acceptance before replacing any member of the CQC staff. Requests

shall include the names, qualifications, duties, and responsibilities of each proposed replacement.

3.5 SUBMITTALS. Submittals shall be made as specified in SECTION 01300 - SUBMITTAL PROCEDURES. The CQC organization shall be responsible for certifying that all submittals are in compliance with the contract requirements.

3.6 CONTROL. The controls shall include at least three phases of control to be conducted by the CQC System Manager for all definable features of work, as follows:

3.6.1 Preparatory Phase. This phase shall be performed prior to beginning work on each definable feature of work and shall include:

a. A review of each paragraph of applicable specifications.

b. A review of the contract drawings.

c. A check to assure that all materials and/or equipment have been tested, submitted, and approved.

d. A check to assure that provisions have been made to provide required control inspection and testing.

e. Examination of the work area to assure that all required preliminary work has been completed and is in compliance with the contract.

f. A physical examination of required materials, equipment, and sample work to assure that they are on hand, conform to approved shop drawings or submitted data, and are properly stored.

g. A review of the appropriate activity hazard analysis to assure safety requirements are met.

h. Discussion of procedures for constructing the work including repetitive deficiencies. Document construction tolerances and workmanship standards for that phase of work.

i. A check to ensure that the portion of the plan for the work to be performed has been accepted by the Contracting Officer.

j. The Government shall be notified at least 24 hours in advance of beginning any of the required action of the preparatory phase. This phase shall include a meeting conducted by the CQC System Manager and attended by the superintendent, other CQC personnel (as applicable), and the foreman responsible for the definable feature. The results of the preparatory phase actions shall be documented by separate minutes prepared by the CQC System Manager and attached to the daily CQC report. The Contractor shall instruct applicable workers as to the acceptable level of workmanship required in order to meet contract specifications.

3.6.2 Initial Phase. This phase shall be accomplished at the beginning of a definable feature of work. The following shall be accomplished:

a. A check of preliminary work to ensure that it is in compliance with contract requirements. Review minutes of the preparatory meeting.

b. Verification of full contract compliance. Verify required control inspection and testing.

c. Establish level of workmanship and verify that it meets minimum acceptable workmanship standards. Comparison with sample panels is appropriate.

d. Resolve all differences.

e. Check safety to include compliance with and upgrading of the safety plan and activity hazard analysis. Review the activity analysis with each worker.

f. The Government shall be notified at least (24) hours in advance of beginning the initial phase. Separate minutes of this phase shall be prepared by the CQC System Manager and attached to the daily CQC report. Exact location of initial phase shall be indicated for future reference and comparison with follow-up phases.

g. The initial phase should be repeated for each new crew to work on-site, or any time acceptable specified quality standards are not being met.

3.6.3 Follow-up Phase. Daily checks shall be performed to assure continuing compliance with contract requirements, including control testing, until completion of the particular feature of work. The checks shall be made a matter of record in the CQC documentation. Final follow-up checks shall be conducted and all deficiencies corrected prior to the start of additional features of work which may be affected by the deficient work. The Contractor shall not build upon or conceal non-conforming work.

3.6.4 Additional Preparatory and Initial Phases. As determined by the Government, additional preparatory and initial phases may be conducted on the same definable features of work if the quality of on-going work is unacceptable, if there are changes in the applicable CQC staff, on-site production supervision or work crew, if work on a definable feature is resumed after a substantial period of inactivity, or if other problems develop.

3.7 TESTS.

3.7.1 Materials Testing and Inspection. Testing shall be the responsibility of the Contractor and shall be performed at no additional cost to the Government. All testing shall be performed by a Corps of Engineers validated commercial testing laboratory. Both the field and permanent laboratory shall be validated. A list of current validated testing laboratories can be viewed at www.wes.army.mil/SL/MTC/mtc.htm or you may contact Mr. Steve O'Connor, St. Louis District, Geotechnical Branch, at Telephone 314-331-8425 for laboratory verifications. If the Contractor elects to establish testing facilities, work requiring testing will not be permitted until the Contractor's facilities have been validated by the Materials Testing Center. The Contractor shall ensure that the Materials Testing Center is reimbursed for all costs regarding validation of testing laboratories pertaining to this contract.

3.7.2 Testing Procedure. The Contractor shall perform specified or required tests to verify that control measures are adequate to provide a product that conforms to contract requirements. Testing includes operation and/or acceptance tests when specified. The Contractor shall procure the services of a testing laboratory on or off site that is validated by the

Material Testing Center (MTC) for the Corps of Engineers. The Contractor shall perform the following activities and record and provide the following data:

a. Verify that testing procedures comply with contract requirements.

b. Verify that facilities and testing equipment are available and comply with testing standards.

c. Check test instrument calibration data against certified standards.

d. Verify that recording forms and test identification control number system, including all of the test documentation requirements, have been prepared.

e. Results of all tests taken, both passing and failing tests, shall be recorded on the CQC report for the date taken. Specification paragraph reference, location where tests were taken, and the sequential control number identifying the test shall be given. If approved by the Contracting Officer, actual test reports may be submitted later with a reference to the test number and date taken. An information copy of tests performed by an off-site or commercial test facility shall be provided directly to the Contracting Officer. Failure to submit timely test reports as stated may result in nonpayment for related work performed and disapproval of the test facility for this contract.

3.7.3 Testing Laboratories.

3.7.3.1 Capability Check. The Government reserves the right to check laboratory equipment in the proposed laboratory for compliance with the standards set forth in the contract specifications and to check the laboratory technician's testing procedures and techniques. Laboratories utilized for testing soils, concrete, asphalt, and steel shall meet criteria detailed in ASTM D 3740 and ASTM E 329, and shall be validated by the Corps of Engineers MTC.

3.7.3.2 Capability Recheck. If the selected laboratory fails the capability check, the Contractor will be assessed any charges incurred to reimburse the Government for each succeeding recheck of the laboratory or the checking of a subsequently selected laboratory. Such costs will be deducted from the contract amount due the Contractor.

3.7.4 On-Site Laboratory. If an onsite CQC laboratory is established, the Contractor shall submit the request for validation to the District POC in a timely manner and emphasize the critical need. After the request to the MTC is submitted, the Contractor should anticipate a six-week turn around and reflect the turn-around time in its scheduling. The Government reserves the right to utilize the Contractor's control testing laboratory and equipment to make assurance tests and to check the Contractor's testing procedures, techniques, and test results at no additional cost to the Government.

3.7.5 Furnishing or Transportation of Samples for Testing. Costs incidental to the transportation of samples or materials shall be borne by the Contractor. Samples of materials for test verification and acceptance testing by the Government shall be delivered to the Corps of Engineers Division Laboratory, f.o.b., at the following address:

For delivery by mail: For other deliveries:

US Army Engineer Research and Development Center P.O. Box 631 Vicksburg, MS 39181-0631	US Army Engineer Research and Development Center 3909 Halls Ferry Road Vicksburg, MS 39180-6199

Coordination for each specific test, exact delivery location, and dates shall be made through the Area Office.

3.8 COMPLETION INSPECTION. At the completion of all work or any increment thereof established by a completion time stated in the Contract Clause entitled "Commencement, Prosecution, and Completion of Work," or stated elsewhere in the specifications, the CQC System Manager shall conduct an inspection of the work and develop a "punch list" of items which do not conform to the approved drawings and specifications. Such a list of deficiencies shall be included in the CQC documentation, as required by paragraph DOCUMENTATION below, and shall include the estimated date by which the deficiencies will be corrected. The CQC System Manager or staff shall make a second inspection to ascertain that all deficiencies have been corrected and so notify the Government. These inspections and any deficiency corrections required by this paragraph shall be accomplished within the time stated for completion of the entire work or any particular increment thereof if the project is divided into increments by separate completion dates.

3.9 DOCUMENTATION. The Contractor shall maintain current records providing factual evidence that required quality control activities and/or tests have been performed. These records shall include the work of subcontractors and suppliers and shall be on the form as produced through the Resident Management System (RMS) QC module that includes, as a minimum, the following information:

a. Contractor/subcontractor and their area of responsibility.

b. Operating plant/equipment with hours worked, idle, or down for repair.

c. Work performed each day, giving location, description, and by whom. When Network Analysis (NAS) is used, identify each phase of work performed each day by NAS activity number.

d. Test and/or control activities performed with results and references to specifications/drawings requirements. The control phase should be identified (Preparatory, Initial, Follow-up). List deficiencies noted along with corrective action.

e. Quantity of materials received at the site with statement as to acceptability, storage, and reference to specifications/drawings requirements.

f. Submittals reviewed, with contract reference, by whom, and action taken.

g. Off-site surveillance activities, including actions taken.

h. Job safety evaluations stating what was checked, results, and instructions or corrective actions.

i. Instructions given/received and conflicts in plans and/or

specifications.

j. Contractor's verification statement.

These records shall indicate a description of trades working on the project; the number of personnel working; weather conditions encountered; and any delays encountered. These records shall cover both conforming and deficient features and shall include a statement that equipment and materials incorporated in the work and workmanship comply with the contract. The original and one copy of these records in report form shall be furnished to the Government daily within 24 hours after the date(s) covered by the report, except that reports need not be submitted for days on which no work is performed. As a minimum, one report shall be prepared and submitted for every seven days of no work and on the last day of a no work period. All calendar days shall be accounted for throughout the life of the contract. The first report following a day of no work shall be for that day only. Reports shall be signed and dated by the CQC System Manager. The report from the CQC System Manager shall include copies of test reports and copies of reports prepared by all subordinate quality control personnel.

3.10 NOTIFICATION OF NONCOMPLIANCE. The Contracting Officer will notify the Contractor of any detected noncompliance with the foregoing requirements. The Contractor shall take immediate corrective action after receipt of such notice. Such notice, when delivered to the Contractor at the worksite, shall be deemed sufficient for the purpose of notification. If the Contractor fails or refuses to comply promptly, the Contracting Officer may issue an order stopping all or part of the work until satisfactory corrective action has been taken. No part of the time lost due to such stop orders shall be made the subject of claim for extension of time or for excess costs or damages by the Contractor.

3.11 IMPLEMENTATION OF GOVERNMENT RESIDENT MANAGEMENT SYSTEM (RMS) FOR CONTRACTOR QUALITY CONTROL OF CONTRACT.

3.11.1 General. The Government will use the Resident Management System (RMS) to assist in its monitoring and administration of this contract. The Contractor shall use the Government-furnished Contractor Quality Control (CQC) Programming Module to plan, schedule, and manage work during construction period of the project. This joint Government-Contractor use of RMS will facilitate electronic exchange of information and overall management of the contract. The CQC module will provide the Contractor with a means to input, track, and electronically share information with the Government in administration, finances, Quality Control, submittal monitoring, scheduling, and import/export of data.

3.11.1.1 RMS Windows Version. The Contractor shall use the Government-furnished Construction Contractor Module of RMS-Windows, referred to as RMS-QC (QC for Quality Control), to record, maintain, and submit information throughout the contract period. This can be downloaded at http://24.221.12.75/qcs/04QCSUpdates.htm and/or http://24.221.12.75/qcs/default.html. Minimum hardware requirements for RMS-QC include an IBM-compatible personal computer with 500 mhz Pentium processor, 128 plus MB RAM, 1GB minimum hard drive space, 3.5 inch high-density floppy drive, compact disk reader 8x speed or higher, color monitor, laser printer compatible with HP LaserJet III with minimum 4 MB installed memory, and connection to the Internet (minimum 56k BPS). Minimum software requirements include Electronic mail (E-mail) MAPI compatible; MS Windows 98, ME, NT or 2000; word processing software compatible with MS Word 97 or newer, Internet

browser that supports HTML 4.0 or higher; and virus protection software that is regularly upgraded with all issued manufacturer's updates throughout the life of the contract.

3.11.2 Quality Assurance Comments. During the course of the contract, the Contractor will receive various Quality Assurance comments from the Government that will reflect corrections needed to Contractor activities or reflect outstanding or future items needing the attention of the Contractor. The Contractor shall acknowledge receipt of these comments by specific number reference on its Daily CQC Report, and shall also reflect on its Daily CQC Report when these items are specifically completed or corrected to permit Government verification.

3.11.3 Contractor's Scheduling System. The Contractor's schedule system shall include, as specific and separate activities, all Preparatory Phase Meetings (inspections), all O&M Manuals and all Test Plans of Electrical and Mechanical Equipment or Systems that require validation testing or instructions to Government representatives.

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SECTION 01500 - TEMPORARY CONSTRUCTION FACILITIES

PART 1 GENERAL

1.1 GENERAL REQUIREMENTS. As soon as practicable, but not later than 15 days after the date established for commencement of work, the Contractor shall provide the temporary facilities specified herein. The temporary facilities shall be maintained by the Contractor during the life of the contract and upon completion and acceptance of the work shall be removed from the site of the work.

1.1.1 No Separate Payment. Payment for materials and equipment furnished under this section will not be paid for separately, and all costs in connection therewith shall be included in other items for which payment is provided.

1.2 APPLICABLE PUBLICATIONS. The publications listed below form a part of this specification to the extent referenced. The publications are referred to in the text by basic designation only.

1.2.1 Engineering Manuals (EM).

EM 385-1-1	U.S. Army Corps of Engineers Safety and Health Requirements Manual

1.2.2 Engineering Pamphlets (EP).

EP 310-1-6A	U.S. Army Corps of Engineers Sign Standards Manual, VOL 1, CH 1

PART 2 PRODUCTS

2.1 TEMPORARY FIELD OFFICE. The Government will utilize the basement of the existing Lock house for the temporary field office.

2.1.1 Equipment To Be Provided. The office shall be equipped with a copier, a FAX machine with separate dedicated telephone line, an answering machine, and a cordless telephone with a common telephone line. The Contractor will be responsible for the cost of monthly telephone service, FAX line service and the average cost of long distance telephone calls up to $200.00 per month. The Contractor shall run the phone line and fax line into the Lock house basement area and establish phone and fax service for the temporary construction field office. At a minimum, the office shall also be equipped with a 'Pentium' computer at 2GHz plus; 256 MB memory; 30GB plus hard drive; 56k modem and Integrated 10/100 Ethernet. The computer shall be compatible with Windows XP and shall also be supplied with a HP Laser Jet 4 printer or similar.

2.2 TEMPORARY PROJECT AND SAFETY SIGNS. The Contractor shall furnish and erect one temporary project sign and one safety sign at the project site at the location designated by the Contracting Officer. The signs shall conform to the requirements of U.S. Army Corps of Engineers Sign Standard Manual EP-310.1-6a, Section 16 entitled, "Construction Project Signs", Pages 16.1 through 16.4, copies of which are enclosed at the end of this section. If sign is to be placed on a floating plant, it may be half sized.

Information will be furnished by the Contracting Officer as to the location and wording of the signs.

2.3 TEMPORARY PROJECT SAFETY FENCING. The Contractor shall furnish and erect temporary project safety fencing as required by the Safety and Health Requirements Manual EM 385-1-1. The safety fencing shall be a high visibility orange color, HDPE open-weave pattern, a minimum of 42 inches high, supported and tightly secured to steel posts located on maximum 10 foot centers, constructed at the approved location. If required by the Safety Manual, fencing shall meet EPA's recommended recovered materials content levels of 60-100% for Postconsumer Content and 90-100% Total Recovered Materials Content.

PART 3 EXECUTION

3.1 HAUL ROADS. Whenever practical, one-way haul roads shall be used on this contract. Haul roads built and maintained for this work shall comply with the following:

a. One-way haul roads for off-the-road equipment; e.g., belly dumps, scrapers, and off-the-road trucks, shall have a minimum usable width of 25 feet. One-way haul roads for over-the-road haulage equipment only (e.g., dump trucks, etc.) may be reduced to a usable width of 15 feet. When the Contracting Officer determines that it is impractical to obtain the required width for one-way haul roads (e.g., a road on top of a levee), a usable width not less than 10 feet may be approved by the Contracting Officer, provided a positive means of traffic control is implemented. Such positive means shall be signs, signals, and/or signalman and an effective means of speed control.

b. Two-way haul roads for off-the-road haulage equipment shall have a usable width of 60 feet. Two-way haul roads for over-the-road haulage equipment only may be reduced to a usable width of 30 feet.

c. Haul roads shall be graded and otherwise maintained to keep the surface free from potholes, ruts, and similar conditions that could result in unsafe operation.

d. Grades and curves shall allow a minimum sight distance of 200 feet for one-way roads and 300 feet for two-way roads. Sight distance is defined as the centerline distance an equipment operator (4.5 feet above the road surface) can see an object 4.5 feet above the road surface. When conditions make it impractical to obtain the required sight distance (e.g., ramps over levees), a positive means of traffic control shall be implemented.

e. Dust abatement shall permit observation of objects on the roadway at a minimum distance of 300 feet.

f. Haul roads shall have the edges of the usable portion marked with posts at intervals of 50 feet on curves and 200 feet maximum elsewhere. Such markers shall extend 6 feet above the road surface and, for nighttime haulage, be provided with reflectors in both directions.

3.2 CLEANUP. Construction debris, waste materials, packaging material and the like shall be removed from the work site daily. Any dirt or mud which is tracked onto paved or surfaced roadways shall be cleaned away as directed by the Contracting Officers Representative or designated Government Representative(s).

3.3 RESTORATION OF STORAGE AREA. Upon completion of the project, areas

used by the Contractor for the storage of equipment or material, or other use, shall be restored to the original or better condition.

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DIVISION 2 - SITE WORK

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SECTION 02920
LEAD BASED PAINT EXPOSURE AND DISPOSAL

PART 1 - GENERAL

1.1 APPLICABLE PUBLICATIONS. The following publications of the issues listed below, but referred to thereafter by the basic designation only, form a part of this specification to the extent referenced:

1.1.1 Code of Federal Regulations (CFR).

29 CFR 1910.20	Access to Employee Exposure and Medical Records
29 CFR 1910.23	Guarding Floor and Wall Openings and Holes
29 CFR 1910.134	Respiratory Protection
29 CFR 1910.145	Specification for Accident Prevention Signs and Tags
29 CFR 1926.20	General safety and health provisions
29 CFR 1926.21	Safety training and education
29 CFR 1926.25	Housekeeping
29 CFR 1926.28	Personal protective equipment
29 CFR 1926.51(f)	Washing facilities
29 CFR 1926.55	Gases, vapors, fumes, dusts, and mists
29 CFR 1926.57	Ventilation
29 CFR 1926.59	Hazardous Communication Standard
29 CFR 1926.62	Lead
29 CFR 1926.103	Respiratory Protection
29 CFR 1926.353(c)	Ventilation. Welding, Cutting, or Heating of Metals of Toxic Significance.
40 CFR 61, Subpart A	General Provisions
40 CFR 61.152	Standard for Waste Disposal for Manufacturing, Demolition, Renovation, Spraying and Fabricating Operations
40 CFR 241	Guidelines for the Land Disposal of Solid Wastes
40 CFR 257	Criteria for Classification of Solid Waste Disposal Facilities and Practices

1.1.2 American National Standards Institute (ANSI).

Z88.2-92	Practice for Respiratory Protection

1.1.3 U.S. Army Corps of Engineers (COE); Engineering Manual (EM).

EM 385-1-1 Corps of Engineers Safety and Health Requirements Manual

1.1.4 National Institute For Occupational Safety and Health (NIOSH).

Manual of Analytical Methods, 3rd Ed., Vols 1 and 2

1.2 EXPOSURE AND DISPOSAL.

1.2.1 Definitions.

Abatement: A comprehensive process of eliminating exposure or potential exposure to lead-based paint which must include testing, measures for worker protection, containment of dust and debris, cleanup of waste, and clearance testing.

EPA Identification: The unique number assigned by EPA to each generator or transporter of hazardous waste, and each treatment, storage, or disposal facility.

Exposure Monitoring: The personal air monitoring of an employee's breathing zone to determine the amount of contaminant (e.g. lead) to which he/she is exposed.

Generator: Any person who first creates a hazardous waste, or any person who first makes the waste subject to the Subtitle C regulation (e.g., imports a hazardous waste, initiates a shipment of a hazardous waste from a treatment and disposal facility, or mixes hazardous wastes of different DOT shipping descriptions by placing them into a single container).

Hazardous Waste: As defined in RCRA the term "hazardous waste" means a solid waste, or combination of solid wastes, which because of its quantity, concentration, or physical, chemical, or infectious characteristics may:

1. Cause, or significantly contribute to an increase in mortality or an increase in serious irreversible, or incapacitating reversible, illness; or

2. Pose a substantial present or potential hazard to human health or the environment when improperly treated, stored, transported, or disposed of, or otherwise managed.

As defined in the regulations, a solid waste is hazardous if it meets one of four conditions:

1. Exhibits a characteristic of a hazardous waste (40 CFR Sections 261.20 through 262.24).

2. Has been listed as hazardous (40 CFR Section 261.31 through 261.33).

3. Is a mixture containing a listed hazardous waste and a non-hazardous solid waste (unless the mixture is specifically excluded or no longer exhibits any of the characteristics of hazardous waste).

4. Is not excluded from regulation as a hazardous waste.

High Phosphate Detergent: Detergent which contains at least 5% trisodium phosphate (TSP).

Incinerator: Any enclosed device using controlled flame combustion that neither meets the criteria for classification as a boiler nor is listed as an industrial furnace.

Manifest: The shipping document, EPA form 8700-22, used for identifying the quantity, composition, origin, routing, and destination of hazardous waste during its transportation from the point of generation to the point of treatment, storage, or disposal.

Medical Removal: The temporary removal of workers due to elevated blood lead levels as defined this specification.

MSHA: Mine Safety and Health Administration.

RCRA: Resource Conservation and Recovery Act of 1976 and its amendments.

TCLP: Toxic Characteristic Leaching Procedure, contained in 40 CFR Part 261 subpart C.

Transporter: Any person engaged in the off-site transportation of hazardous waste within the United States, by air, rail, highway, or water, if such transportation requires a manifest under 40 CFR Part 262.

1.2.2 General Description and Scope of Work. The work under these specifications shall include furnishing all equipment and materials; providing all labor, supervision, administration, and management; and supplying all construction equipment, materials, and services necessary to perform demolition, removal or handling of components with lead-based paint complete in accordance with the specifications, drawings, and other contract documents.

(2) The following explanations and listings and those contained in Paragraph 02920-3.3 are intended to give a general definition of the scope of the work under these specifications, and shall not be construed to be an itemized listing of each element of work required. The Contractor shall be responsible for conforming in all respects to the details and requirements of the specifications, drawings, and other contract documents. The Contractor shall be responsible for determining all local conditions and factors which would affect the prosecution, completion, and cost of the materials, labor, and services to be provided under this Contract. There will be no financial adjustment which is based on lack of knowledge of onsite conditions or their effect on the cost of the work.

1.2.2.1 Lead-Based Paint Exposure. All metals requiring demolition, including the tainter gates, are painted with lead-based paint. The lead-based paint exposure will involve paint on surfaces which are to be cut, abraded, or disturbed during demolition and rehabilitation at the facilities. All sections of this specification involving personal protection and medical monitoring are to be implemented for all employees who may be exposed to lead-based paint.

(1) All painted materials designated for removal in the contract shall be assumed to contain lead-based paint unless proven otherwise to the satisfaction of the Contracting Officer or duly authorized representative.

(2) All metals from demolition activities including the tainter gates shall be transported to an approved metal recycling facility.

1.3 CONTRACTOR COMPLIANCE AND RESPONSIBILITY.

1.3.1 Permits and Notifications. The Contractor shall obtain all necessary permits and certifications of personnel in conjunction with lead

exposure, and provide timely notification of such actions as may be required by Federal, State of Missouri, regional, and local authorities. The Contractor shall be responsible for all testing required to obtain the necessary permits and certifications. Fees and/or charges for these permits shall be included in the Contract Price. The Contractor shall submit copies of the required permits, notifications, and certifications to the Contracting Officer or duly authorized representative prior to any on site activities.

1.3.2 Coordination Meeting. Representatives of the Contractor shall attend a coordination meeting at a time and place selected by the Contracting Officer or duly authorized representative to discuss matters relative to the execution of this Contract. The Contractor's representatives shall attend additional meetings as required by the Contracting Officer or duly authorized representative thereafter to expedite the work.

1.3.3 Worker Training. The Contractor shall institute a training program and assure participation of the workers who are subject to exposure to lead based paint.

The Contractor shall assure that each employee is informed of the following:

(1) The content of the OSHA lead standard 29 CFR 1926.62 and its appendices.

(2) The purpose, proper selection, fitting, use, and limitations of respirators.

(3) The purpose and a description of the medical removal protection program, including information concerning the adverse health effects associated with excessive exposure to lead based paint with particular attention to the adverse reproductive effects on both males and females.

(4) The hazards to the fetus and additional precautions for employees who are pregnant.

(5) Engineering controls and work practices associated with the employee's job assignment.

(6) The content of any compliance plan in effect.

(7) Instructions to employees that chelating agents should not routinely be used to remove lead from their bodies, and should not be used at all except under the direction of a licensed physician.

All worker education programs must discuss and make available the OSHA Hazard Communication Standard 29 CFR 1926.59. Employers shall also check local requirements, as some states have adopted their own right-to-know regulations. OSHA standard 29 CFR 1910.20, Access to Employee Exposure and Medical Records, requires that workers be given access to their medical and exposure records and to results from any studies conducted by the employer. The worker may also request an explanation of what his or her medical records mean. In addition, the standard gives workers the right to examine industrial hygiene sampling information, results of biological monitoring, exposure records, and material safety data sheets.

1.3.4 Worker Medical Surveillance. The Contractor shall provide medical examinations for all employees who are potentially exposed to lead at or above the OSHA action level. Medical surveillance shall be provided at no cost to employees and must be at a reasonable time and place. The medical exam shall be performed by, or under the supervision of a licensed physician.

The employer must notify employees in writing of their blood lead levels. If the employees' blood lead levels exceed the numerical criterion for medical removal, they are qualified for temporary medical removal with protection benefits.

1.3.4.1 Pre-placement Medical Examination. Before exposure to lead and before respirator fit testing, workers must be referred to a physician for a medical examination. The content of the exam shall include at least the items listed in the following Paragraph entitled Physical Examination.

1.3.4.2 Physical Examinations. Medical examinations must include the following:

(1) A detailed work and medical history that pays particular attention to past lead exposure and past gastrointestinal, hematologic, renal, cardiovascular, reproductive, and neurological problems as well as personal habits such as smoking and hygiene.

(2) A thorough physical examination that pays particular attention to teeth, gums, and hematologic, gastrointestinal, renal, cardiovascular, and neurological systems.

(3) Evaluation of pulmonary status to determine whether the worker is capable of wearing a respirator.

(4) A blood pressure measurement.

(5) A blood sample and analysis that determines blood lead levels, hemoglobin and hematocrit, red cell indices, peripheral smear morphology, blood urea nitrogen, serum creatinine, and zinc protoporphyrin.

(6) A routine urinalysis with microscopic examination.

(7) Pregnancy testing, or laboratory evaluation of male fertility, if requested by a worker.

(8) Any other tests which are recommended by the examining physician.

1.3.4.3 Periodic Medical Examination. A periodic medical examination must be provided at least annually to all employees for whom a blood sampling test conducted any time during the preceding 12 months indicated a blood lead level at or above 40 Fg of lead per deciliter of whole blood (often referred to as 40 Fg/dl). The following conditions necessitate more frequent medical examinations:

(1) As soon as possible after a worker notifies the employer that he or she has signs or symptoms associated with lead toxicity.

(2) Whenever the worker desires medical advice concerning the effects of current or past exposure to lead.

(3) Whenever workers seek medical advice concerning the effects lead exposure can have on the ability to procreate a healthy child.

(4) Whenever workers show difficulty in breathing during a respirator fit test or during respirator use.

(5) As medically appropriate for workers who were removed due to lead exposure.

(6) Immediately upon notification that a worker is pregnant.

1.3.4.4 Special Provisions for Blood Lead Monitoring. Blood lead and zinc protoporphyrin must be monitored when the following conditions occur:

(1) At least every 2 months during the first 6 months of lead removal employment, and every 6 months thereafter.

(2) At least every 2 months for each worker whose last blood sampling and analysis indicated a lead level at or greater than 40 Fg/dl. Continue testing at least every 2 months until two consecutive tests indicate blood lead levels less than 40 Fg/dl.

(3) At least monthly when the worker has been medically removed.

When the results of the above sampling indicate that the employee's blood lead level exceeds the criterion for medical removal, a second follow-up blood sampling test must be administered within 2 weeks after the employer receives the results of the first test. Analysis of blood samples must be conducted by a laboratory approved by OSHA. Employers or examining physician may contact their local OSHA area office for a current list of approved labs.

1.3.4.5 Information Provided to Examining Physician. The following information must be provided to the examining physician:

(1) Copy of the standard (29 CFR 1926.62) and appendices.

(2) Description of worker's duties as it relates to his/her exposure.

(3) Exposure level or anticipated exposure level to lead.

(4) Personal protective equipment used or expected to be used.

(5) Prior blood lead determinations.

(6) Any written medical opinions concerning a worker that are in control of the employer.

1.3.4.6 Written Medical Opinion. The Examining Physician shall provide a written medical opinion to the Contractor for each employee. Each employee shall be provided a copy of their individual results. The following information shall be provided:

(1) Whether the employee has any detected medical condition which would place his/her health at increased risk from lead exposure.

(2) Any special protective measures or limitations on worker's exposure to lead.

(3) Any limitation on respirator use, including whether a powered air purifying respirator can be worn if a physician determined that a negative pressure respirator could not be worn.

(4) Results of blood lead determinations. The employer must implement and act consistent with these recommendations.

(5) Findings of lab results or diagnoses unrelated to the workers exposure to lead should not be communicated to employers or included in the written opinion.

(6) Employees should be advised by each physician of any medical condition, occupational or non-occupational, which necessitates further medical exam or treatment.

1.3.4.7 Chelation. No employee shall be subjected to prophylactic chelation at any time. If therapeutic or diagnostic chelation is to be performed, the employer must assure that it be done under the supervision of a licensed physician in a clinical setting with thorough and appropriate medical monitoring and that each employee is notified in writing prior to its occurrence.

1.3.4.8 Medical Removal Protection. Medical removal is designed to give employees time to reduce blood lead levels. With good engineering, work practices, personal hygiene, and respiratory protection practices in place, very few employees should reach removal trigger levels. There are different types of removals. While employees are removed, they must be placed in jobs that will not result in additional exposure to lead. Removal from lead exposed occupations is triggered by results of employee blood testing or a physician's orders.

1.3.5 Recordkeeping. The purpose of recordkeeping is to comply with any applicable local, state, and federal regulations, and to document ongoing exposure and medical monitoring of workers. The Contractor is responsible for maintaining written records of exposure monitoring, medical surveillance, and medical removal for the period of time stated in the following sections.

1.3.5.1 Exposure Monitoring Records. A Certified Industrial Hygienist shall review the exposure monitoring results and recommend an appropriate course of action. Within five working days after the receipt of monitoring results, the employer must notify each employee, in writing, of the results which represent that employee's exposure and a description of any corrective actions to be implemented. Exposure monitoring records shall contain the following information:

(1) Dates, number, duration, location, and results of each sample taken.

(2) A description of the sampling procedures used to determine representative employee exposures.

(3) A description of the sampling and analytical methods used and evidence of their accuracy.

(4) The type of respirator worn.

(5) The worker's name, social security number, and job classification of employee monitored, and of all other employees whose exposure the measurement is intended to represent.

(6) Environmental variables that could affect measurement of the worker's exposure (e.g., temperature and humidity).

(7) Exposure monitoring records shall be maintained by the Contractor for 40 years or for the duration of employment plus 20 years, whichever is longer.

1.3.5.2 Medical Surveillance Records. Medical surveillance records shall include:

(1) The worker's name, social security number, and a description of duties.

(2) A copy of the physician's written opinions.

(3) Results of any airborne exposure monitoring done for that worker and the representative exposure concentrations supplied to the physician.

(4) Medical complaints related to lead exposure.

(5) A copy of the medical exam results, including medical and work history and a description of laboratory procedures.

(6) Results of any airborne exposure monitoring done for that worker and the representative exposure concentrations supplied to the physician.

(7) Medical complaints related to lead exposure.

(8) A copy of the medical exam results, including medical and work history and a description of laboratory procedures.

(9) A copy of standards or guidelines used to interpret the test results.

(10) A copy of the results of any biological monitoring.

Medical surveillance records shall be maintained for 40 years or for the duration of employment plus 20 years, whichever is longer.

1.3.5.3 Medical Removal Records. Medical removal records shall include the following information:

(1) The name and social security number of the worker.

(2) The date of each occasion that the worker was removed from current exposure to lead.

(3) The date on which the worker was returned to his or her former job status.

(4) A brief explanation of how each removal was or is being accomplished.

(5) A statement indicating whether or not the reason for the removal was an elevated blood lead level.

These records shall be maintained by the Contractor for at least the duration of any worker's employment.

1.3.5.4 Availability. All records must be made available upon request to the Assistant Secretary of Labor for OSHA and the Director of NIOSH for examination and copying. The Contractor must do the following upon request:

(1) Make environmental monitoring, biological monitoring, and medical removal records available to affected employees, former employees, or authorized employees for examination and copying.

(2) Make employee's medical records available to affected employee or authorized employee or to a physician or other person designated by such affected employee or authorized employee for examination and copying.

1.3.5.5 Transfer of Records. Whenever the employer ceases to do business, the successor employer must receive and retain all records required

to be maintained. When the employer ceases to do business and there is no successor employer to receive and retain the records, these records must be transmitted to the Director of NIOSH. At the expiration of the retention period for the records required to be maintained, the employer must notify the Director of NIOSH at least 3 months prior to the disposal of such records and must transmit those records to the Director of NIOSH if requested within the period.

1.4 CONTRACTOR QUALIFICATIONS AND CERTIFICATIONS. The following shall be submitted to the Contracting Officer or duly authorized representative prior to the start of the lead abatement. No work shall begin until the following submittals have been reviewed and approved by the Contracting Officer or duly authorized representative.

1.4.1 Safety and Health Personnel Qualifications. The Contractor shall utilize a Certified Industrial Hygienist (CIH) with overall responsibility to develop, implement, and oversee enforcement of the Lead-Based Paint Removal and Disposal Plan as defined in Paragraph 02920-1.4.6, including the Contractor's personal air monitoring program. The CIH shall have demonstrable expertise in worker air monitoring programs; in the establishment of respiratory protection programs; a working knowledge of applicable state, federal, and occupational safety and health regulations; and formal educational training in occupational safety and health. The CIH is not required to be present at the worksite on a full-time basis, but shall conduct regular onsite supervision and continued evaluation of the effectiveness of the Site Health and Safety Plan. The IH shall be responsible for the ongoing implementation and enforcement of the Lead-Based Paint Removal and Disposal Plan, including the worker air monitoring program to the Crew Supervisor.

1.4.2 Licenses. Maintain current licenses as required by applicable State or local jurisdictions for the abatement, removal, transporting, disposal or other regulated activity relative to the work of this contract. Submit copies of all State and local licenses and permits necessary to carry out the work of this contract.

1.4.3 Permits and Notifications. Submit copies of current valid permits and notifications as described in Paragraph 02920-1.3.1.

1.4.4 Submittals. Submittals shall be made in accordance with the applicable provisions of SECTION 01300 - CONTRACTOR SUBMITTAL PROCEDURES. Prior to starting any work involving lead based paint, the Contractor shall attend a preconstruction meeting. The time and place of the meeting will be designated by the Contracting Officer or duly authorized representative. All submittals from the Contractor shall be approved by the Contracting Officer or duly authorized representative prior to start of work. At that meeting the Contractor shall provide a detailed written account of the following:

(1) Lead-Based Paint Removal and Disposal Plan (described in Paragraph 02920-1.4.6).

(2) Proposed work schedule for all operations.

(3) Accident Prevention Plan as described in Far Clause 52.236-13 and EM 385-1-1.

(4) Written report on the Contractor's staff including the chain of command to be utilized at the work site.

(5) Proof that the environmental health testing laboratory used for air sample analysis is currently accredited for inorganic analysis by the American Industrial Hygiene Association (AIHA) and the American Association of Laboratory Accreditation (AALA).

(6) The name, address, and telephone number of the Certified Industrial Hygienist selected to prepare the Lead-Based Paint Removal and Disposal Plan, direct monitoring, perform training, and a copy of his/her American Board of Industrial Hygiene (ABIH) certification showing certification number and date.

(7) The prepared Contingency Plan for emergencies at the work site; including fire, accident, heat related injury, toxic atmosphere, power failure, etc. Include in the Plan specific procedures for decontamination or work area isolation. Include detail procedures on plans in event of detection of unexpected airborne lead contamination in the site area or on the adjoining grounds, or spilling of lead containers being hauled to storage and/or disposal. Provide Contractor's and Contracting Officer or duly authorized representative's point of contact telephone numbers, locations of police, fire department, hospitals, clinic, and all emergency service agencies closest to the work areas. These shall be prominently posted. Evacuation plans shall be included in the Contingency Plan. As part of the Plan, written notification shall be provided to the police, fire and emergency medical personnel of the planned asbestos abatement and disposal activities, the work schedule, and particularly any barriers or site features that may affect access and response capabilities.

(8) An equipment list which shall include manufacturer's data (brand name, model, capacity performance characteristics), quantities and any other pertinent information for all equipment and materials to be used in all operations performed on this project. This shall include but not be limited to the following:

a. Respirators and cartridges.

b. HEPA vacuums and vacuum equipment.

c. Other portable HEPA filter exhaust ventilation equipment.

d. Protective clothing and other personnel protection equipment.

e. Trucks used to haul waste.

f. Waste shipping containers.

g. Air sampling pumps.

h. Calibration devices.

Manufacturer's certificates of compliance shall be submitted that all respiratory protection devices utilized on the site are approved by NIOSH. Provide manufacturer's certificate of HEPA filtration capabilities for all cartridges and filters and HEPA vacuum systems. Provide manufacturer's product brochures and statements of capability for negative air pressure system.

(9) A comprehensive list of materials or manufacturer's descriptive literature along with all applicable Material Safety Data Sheets for review and acceptance of all major materials proposed for use in work under this Contract prior to the start of lead related work.

(10) All licenses, permits, notifications, and certificates as discussed herein.

(11) The Contractor shall submit proof that its employees have been trained in accordance with provisions stated in Paragraph 02920-1.3.5. The Contractor shall also submit proof that employees are involved in a medical surveillance program as outlined in Paragraph 02920-1.3.6.

(12) Waste Disposal Plan (described in Paragraph 02920-1.4.9).

1.4.5 Lead Based Paint Review. Prior to any work at the site, conduct a site visit with the Contracting Officer or duly authorized representative. The Contractor shall be responsible for determining the exact nature and extent of the materials to be removed or disturbed and all local conditions and factors which would affect the prosecution, completion, and cost of the materials, labor, and services to be provided under this Contract. There will be no financial adjustment which is based on lack of knowledge of onsite conditions or their effect on the cost of the work.

1.4.6 Lead-Based Paint Exposure, Removal and Disposal Plan. The Contractor shall utilize a Certified Industrial Hygienist to develop a written Lead-Based Paint Exposure, Removal and Disposal Plan to be followed during the removal and disposal of lead containing materials in this project. The Certified Industrial Hygienist shall inspect the worksite where lead-based paint is to be encountered prior to development of the plan. The signature and certification number of the Certified Industrial Hygienist shall be marked on the Lead-Based Paint Exposure, Removal and Disposal Plan. As a minimum, the Safety, Health, and Accident Prevention Program; employee training; personal protective equipment and clothing; employee decontamination; air monitoring and sampling; medical examinations and fitness reports; all necessary Material Safety Data Sheets; a detailed schedule sequencing the abatement work and the interfacing with other trades and Government lock personnel involved in asbestos abatement and construction; and waste storage and disposal shall be addressed in the Lead-Based Paint Removal and Disposal Plan. This plan shall also address abatement prior to cutting, grinding and other disturbance of the auxiliary gate steel surfaces. This plan shall be submitted to the Contracting Officer or duly authorized representative for review. Descriptions, drawings, and site layouts of worksite isolation enclosures and negative air pressure systems locations, decontamination and temporary waste storage facilities, and the boundaries of contaminated work areas shall also be provided for review and acceptance prior to the start of work as part of the Lead-Based Paint Exposure, Removal and Disposal Plan.

1.4.7 Air Monitoring Results. The Contractor shall submit all personal and area air monitoring test results to the Contracting Officer or duly authorized representative or duly authorized representative. All personnel performing sampling shall be properly certified and have medical surveillance as outlined in Paragraph 02920-1.3.6.

Air monitoring results shall be reported to the Contracting Officer or duly authorized representative in duplicate within 24 hours after the completion of a sampling cycle with written results to be submitted within 5 working days. Test results shall indicate each sample's pump serial number, airborne lead concentration, pump start-time, pump stop-time, date, pump flow rate, and exact location of where the sample was taken. The Contractor shall maintain results of air monitoring for 40 years in accordance with OSHA Standards. Test results shall include the names of the persons performing the air monitoring and the analyst who conducted the sample analysis and shall bear the following statement signed by the Industrial Hygienist:

> "I certify that the above samples were taken and the airborne lead concentration analysis were performed in strict compliance with applicable standards and regulations."

1.4.8 Hazard Communication Standards. As required by 29 CFR 1910.1200 and State regulations, employees shall have Hazard Communication Standard information and training pertaining to work site hazards and risks.

1.4.9 Waste Disposal Plan. This plan shall comply with the U.S. Environmental Protection Agency's (EPA) Resource Conservation and Recovery Act (RCRA) regulations. In addition to the RCRA requirements, the plan shall include, but shall not be limited to the following:

(1) Name, location, and telephone number of the reclamation facility used.

(2) Should rented equipment be used to transport waste materials, a copy of the written notification provided to the rental company informing them of the nature of the use of the rental equipment shall be included along with the rental company's acknowledgement and agreement.

(3) Submit proof of receipt prepared, signed, and dated by an agent of any reclamation facility used.

PART 2 - PRODUCTS

2.1 EQUIPMENT AND MATERIALS.

2.1.1 Lead-Based Paint Handling Materials and Equipment. The following materials and equipment shall be used only if the decision is made to remove lead-based paint from surfaces prior to component demolition. This decision shall be approved by the Contracting Officer or duly authorized representative prior to implementation. Materials and equipment used to remove, seal, handle, and dispose of lead-based paint shall conform with all applicable OSHA, EPA, State, and local regulations.

2.1.1.1 Chemical Stripping Removers. Chemical removers shall contain no methylene chloride products.

2.1.1.2 HEPA Vacuums. Vacuums containing high-efficiency filters which can filter out particles of 0.3 microns or greater (from a body of air) at 99.97% efficiency or greater, shall be used during initial and final cleanup. These vacuums shall conform to ANSI Z9.2.

2.1.1.3 High-Phosphate Wash. A detergent containing at least 5% tri-sodium phosphate (TSP) shall be used for final cleanup in abatement activities.

2.1.1.4 Power Equipment. All power equipment shall conform to OSHA Standards 29 CFR 1910.95. Employees and site occupants shall not be exposed to equipment noise levels higher than 84 dBA without being provided approved ear protection.

2.1.1.5 Spraying Equipment. Sprayers used to apply high-phosphate wash shall be of a low-pressure type to prevent lead dust from becoming airborne.

2.1.2 Worker Protective Clothing and Equipment. Worker protective clothing and equipment shall conform to NIOSH recommendations and OSHA Standards during any activity that results in the disturbance of lead-based paint or lead cable.

2.1.2.1 Respiratory Protection. Until air sampling results no longer indicate the need, the Contractor shall provide workers with and require the

use of respirators approved by MSHA/NIOSH. A respiratory protection program shall be established in accordance with the OSHA Standard 29 CFR 1910.134 9(b), (d), (e), and (f) and the OSHA lead Standard 29 CFR 1910.1025. A minimally acceptable respiratory protection program shall include the following:

(1) Written standard operating procedures governing the selection and use of respirators must be established.

(2) Respirators must be selected on the basis of hazards to which the worker is exposed.

(3) The user must be instructed and trained in the proper use of respirators and their limitations including fit testing.

(4) Respirators must be regularly cleaned and disinfected.

(5) Respirators used routinely must be stored in a convenient, clean, and sanitary location.

(6) Respirators used routinely must be inspected during cleaning for worn and deteriorated parts.

(7) Respirators should be assigned to workers for their exclusive use.

(8) Appropriate surveillance of work area conditions and degree of worker exposure or stress must be maintained.

(9) There must be regular inspection and evaluation to determine the continued effectiveness of the program.

(10) Employees should not be assigned tasks requiring the use of respirators unless it has been determined that they are physically able to perform the work and use the equipment. A physician must determine through a medical examination the respirator user's medical status and review it annually.

(11) NIOSH/MSHA approved respirators must be used. The respirator furnished must provide adequate respiratory protection against lead or other hazards for which it is designed. The Contractor shall follow current NIOSH standards for proper selection of respirators.

2.1.2.2 Respirator Use. Respirators shall be worn at all times during lead-based paint abatement. After lead-based paint has been removed and an area has passed visual inspection and final clearance, respirators no longer need be worn in that area. In addition, respirators shall be used at the following times.

(1) During any operation that may result in airborne lead vapor or dust, unless exposure monitoring conducted during that operation (or a similar operation) indicates airborne lead levels below the PEL.

(2) In the lead control area while handling bags or sealed containers and while loading them into the disposal container.

2.1.2.3 Respirator Fitting and Training. The Contractor shall implement and maintain a Respiratory Protection Program in accordance with OSHA Standards 29 CFR 1910.134 and 29 CFR 1926.58. This program shall be described in detail in the Lead-Based Paint Exposure, Removal and Disposal Plan and shall incorporate the elements indicated in the following articles, as a minimum.

(1) Respirator Training. Employees shall be instructed in the selection, wearing, limitations, cleaning, storage, and maintenance of the type(s) of respirator(s) they will be using. Documentation and training records shall be submitted to the Contracting Officer or duly authorized representative.

(2) Fit Testing. Each employee shall be qualitatively or quantitatively fit tested every 6 months as a minimum with the respirator(s) they are issued to ensure proper protection. The type of fit testing and other fit testing requirements shall be in accordance with OSHA Standard 29 CFR 1926.58, Appendix C. If necessary, the employee shall be given a choice of facepiece sizes or styles and respirator brands in order to ensure an adequate fit. Any facial hair that may interfere with the facepiece seal shall be removed prior to fit testing and actual respirator use. In addition, employees shall perform positive/negative pressure checks on half-mask and full-facepiece air purifying respirators each time they are put on and in accordance with manufacturer's instructions.

2.1.2.4 Respirator Storage. Respirators and filter cartridges shall be stored in a place and manner such that they cannot become contaminated with lead.

2.1.2.5 Protective Clothing and Equipment. All personnel engaged in work that disturbs lead based paint shall wear approved protective clothing and equipment. Not only will clothing and equipment need to be provided for lead dust, but also for protection against solvent and caustic stripping compounds. The Contractor shall be responsible for the following:

(1) Providing and assuring use of appropriate protective clothing and equipment.

(2) Providing a clean changing area (this is an area segregated from the work area by a physical barrier and which prevents additional employee lead exposure).

(3) Providing water for washing hands and face and providing shower facilities. For details of shower facilities available for this project, see Section 02910.

(4) Enforcing the removal of protective clothing at the end of each work day and before eating, drinking, or smoking.

(5) Provide for the cleaning, laundering or disposal of protective clothing and equipment.

(6) Informing the worker about proper use and maintenance of clothing and equipment.

2.1.2.5.1 Protective Coveralls. Protective coveralls and shoe covers constitute basic worker protection gear and should be worn at all times. Disposable coveralls and separate shoe covers are recommended. Disposable items can be either breathable or non-breathable. Non-breathable coveralls should not be used when the possibility of heat stress exists. The possibility of heat stress and its signs and symptoms should be discussed with all workers. The Certified Industrial Hygienist shall determine which type of coveralls to be utilized and provide this information in the Lead-Based Paint, Lead and Mercury Exposure, Removal and Disposal Plan.

2.1.2.5.2 Protective Gloves. Glove material should be appropriate for the specific chemical exposure (e.g., solvents and caustic). Cotton

gloves provide some protection against the contamination of hands and cuticles with lead dust.

2.1.2.5.3 Protective Clothing For Cleanup and Disposal. The Contractor is to provide at least the following items for abatement cleanup, and disposal activities. The Certified Industrial Hygienist shall outline these items in the Lead-Based Paint, Lead and Mercury Exposure, Removal and Disposal Plan.

(1) Protective coveralls.

(2) Disposable shoe covers.

(3) Gloves.

(4) Vented goggles and face shields.
(5) Respirators and cartridges.

(5) Hats or other hair protection.

2.1.2.6 Other Materials and Equipment. Other materials and equipment, such as those used to construct the decontamination enclosure systems and isolation barriers shall be new or used, uncontaminated with lead, in serviceable condition, and appropriate to the intended purpose.

PART 3 - EXECUTION

3.1 WORK PROCEDURES.

3.1.1 Controlling Off-Site Dispersal. The Contractor is responsible for keeping lead based paint contamination within the work area. The abatement work crew supervisor is responsible for limiting access to the abatement work area only to the persons included in the following list:

(1) The Contractor and its employees.

(2) State, county, or local enforcement officials or their designees.

(3) The Contracting Officer or duly authorized representative.

(4) A Federal, State or local official, or their designee, engaged in research on lead.

All persons entering a work area during a project that involves breaking or disturbing lead-painted surfaces shall wear disposable shoe covers which shall be removed upon leaving the work area and placed with abatement waste. Any persons entering a mini-enclosure during lead paint component removal activity or during the cleanup process, shall also wear two layers of disposable coveralls and appropriate respiratory protection.

3.2 AIR MONITORING AND ANALYSIS.

3.2.1 Area Monitoring. If lead abatement is determined by the Contracting Officer or duly authorized representative to be necessary, at the start of the project the Contractor shall do initial air monitoring. If the initial monitoring reveals employee exposure to be at or below 30 Fg of lead per cubic meter of air, the measurements need not be repeated unless a production, process, control or work practice change occurs. If the initial determination or subsequent monitoring reveals employee exposure at or above 30 Fg but below 50 Fg of lead per cubic meter of air, the employer must repeat monitoring at least every six months. If the initial monitoring indicates

lead levels above the 50 Fg/m^3 level, this monitoring should be repeated quarterly.

3.2.2 Personal Exposure Monitoring. Personal exposure monitoring shall be conducted in conjunction with all tasks that disturb lead-based paint or lead insulated cable. Exposure monitoring results are to be used by employers for determining the need for respirators, selecting the appropriate respiratory device and in determining the need for engineering controls. Exposure monitoring can also assist employers in identifying sources of exposure and the need for modifying abatement practices, including the need for additional engineering controls to reduce exposure. All air monitoring results are to be submitted to the Contracting Officer or duly authorized representative.

3.3 PROJECT DOCUMENTATION. Maintain and have available for inspection at the jobsite, the following:

3.3.1 Daily Narrative Log. A daily narrative log shall be kept by the Industrial Hygienist. This log shall document the major events which occur each day. This log shall provide a comprehensive description of conditions in and around the jobsite. It shall include the names of all persons who visit the jobsite and all persons who enter the or restricted work areas. It shall contain the details of all accidents, emergencies, breakdowns of equipment, and any material, procedural or safety difficulties, including issues and complaints brought to management attention by the Contractor's employees. It shall contain details such as the number of persons on the job, the time they entered the work area and the time they left, and the nature of the work-in-progress. Each day's entries shall be signed and dated by the person who made them.

3.3.2 Daily Air Monitoring Log. A daily air monitoring log which records all required items outlined in Paragraph 3.2.

3.3.3 Work Schedules. Work schedules and progress charts amended on a daily basis.

3.3.4 Work Summary Report. Upon completion of the work in each set of dam gates, prepare a report and submit it to the Contracting Officer or duly authorized representative. The report shall contain:

(1) A summary of all work that was performed.

(2) A brief description of how the work was accomplished.

(3) A description of any problem areas encountered during the work.

(4) A copy of the narrative log maintained at the jobsite throughout the work.

(5) A copy of the air monitoring log maintained at the jobsite throughout the work.

(6) Drawings: All drawings pertaining to the work area, temporary facilities, and other project activities shall be available for inspection.

3.4 QUALITY CONTROL. As a means of assuring that the performance of the work fulfills the requirements of the contract documents, the Contractor shall establish and implement a program for quality assurance and quality control. The Contractor's on-site supervisor shall conduct an on-site inspection not less than once a day or shift. The Contractor shall maintain a quality assurance program that provides that equipment, materials, and

services under these specifications whether manufactured or performing within the Contractor's plant or at any other source shall be controlled at all points necessary to assure conformance to contractual requirements. The program shall provide for the prevention and ready detection of discrepancies and for timely and positive corrective action. If required, the Contractor shall make objective evidence of quality conformance readily available to the Contracting Officer or duly authorized representative.

3.5 CONFINED SPACE. Work in the tainter gates is considered confined space. All work must be performed in accordance with the requirements of the Safety and Health Requirements Manual EM385-1-1.

--End of Section--

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